STATE ROUTE 140 TRANSPORTATION CONCEPT REPORT

CALTRANS DISTRICT 10 OFFICE OF SYSTEM PLANNING February 2002

APPROVAL RECOMMENDED:

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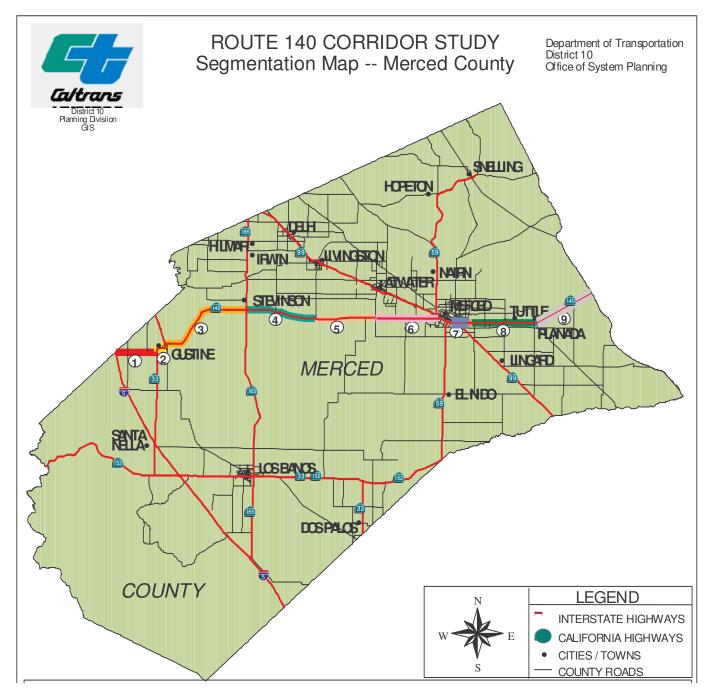
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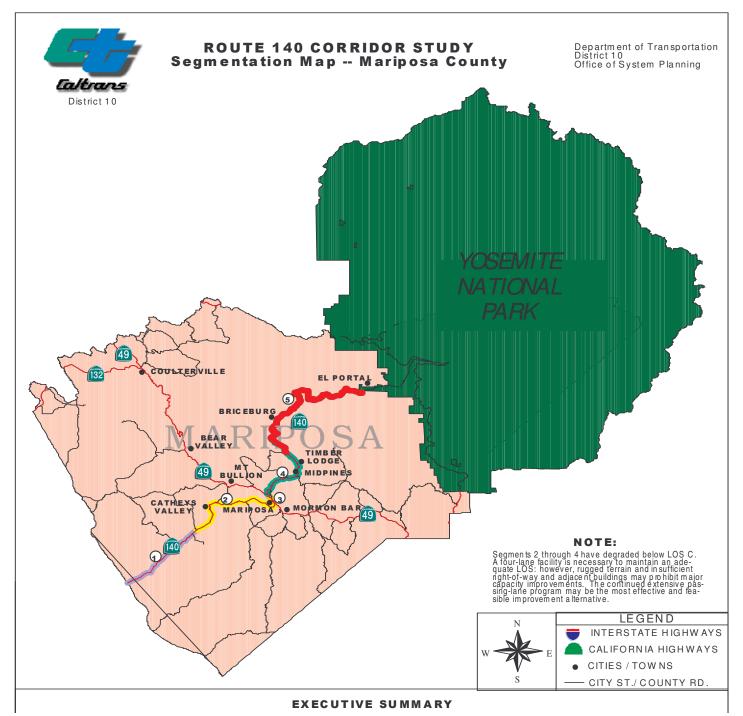
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EXECUTIVE SUMMARY

SEGMENTS	POST MILE	LOCATION	1997 LOS	CURRENT FACILITY	2020 LOS W/O IMPROVEMEN TS	2020 CONCEPT LOS	2020 CONCEPT FACILITY
1	0.00-4.19	1-5 to SR 33	А	2 Lane Conventional	В	D	2-Lane*
2	4.19-6.06	SR 33 to Gustine (East SR 33)	С	2 Lane Conventional	D	D	2-Lane*
3	6.06-16.22	Gustine (East SR 33) to SR 165/Stevinson	В	2 Lane Conventional	С	D	2-Lane*
4	16.22-23.44	SR 165/Stevinson to Lincoln Blvd	В	2 Lane Conventional	С	D	2-Lane*
5	23.44-29.60	Lincoln Blvd. To Applegate	В	2 Lane Conventional	D	D	2-Lane*
6	29.60-35.78	Applegate-Merced (SR 99/SR 59)	В	2 Lane Conventional	E	D	4-Lane*
7	35.78-37.40	Merced (SR 99) to SantaFe Ave.	D	2 Lane Conventional	F	D	4-Lane***
8	37.40-43.70	Santa Fe Ave. to Planada Rd.	С	2 Lane Conventional	E	D	4-Lane ***
9	43.70-50.30	Planada Rd. to Mariposa County Line	В	2 Lane Conventional	D	С	4-Lane*
*Conventional	***Convention	l with continuous left-turn lane and	or left turn	pockets			



SEGMENTS POST MILES LOCATION 1997 **CURRENT FACILITY** 2020 LOS W/O 2020 2020 CONCEPT FACILITY **IMPROVEMENTS** LOS CONCEPT LOS PM 0-9.5 Merced County Line С 2-lane Conventional Ε 4-Lane Conventional 1 С to Hornitos Road PM 9.5-21.22 Hornitos Road to SR D 2-lane Conventional Ε С 2 2-lane conventional highway, 49 South with left turn lanes, passing lanes, and turnouts, as needed 3 PM 21.22-22.00 SR 49 South to SR Ε 2-lane Conventional Ε С 4-5 lane conventional highway 49 North or bypass SR 49 North to 4 PM 22.00-29.70 D 2-lane Conventional Ε С 2-lane conventional highway Colorado Road with passing lanes PM 29.70-51.80 Colorado Road to Ε 2-lane conventional highway 5 D 2-lane Conventional С Yosemite National with passing lanes and paved Park shoulders

Transportation Concept Report State Route 140

STATEMENT OF PLANNING INTENT

System planning is Caltrans' long-range transportation planning process used to identify and prioritize future transportation improvements in cooperation with its planning partners. System planning facilitates the efficient, economical, and intermodal movement of people, goods, and information. It is part of the continuing, cooperative, and comprehensive transportation planning process. System planning strives for interregional and statewide continuity of the State's transportation network.

PURPOSE OF THE TRANSPORTATION CONCEPT REPORT (TCR)

The Transportation Concept Report (TCR) is a system planning document and tool which includes an analysis of a transportation corridor. It establishes a twenty-year transportation planning concept that is consistent with the District's goals as set forth in the District System Management Plan. The TCR establishes the future concept of Level of Service (LOS) for segments along the route and broadly identifies the nature and extent of the improvements needed to attain that Level of Service. Operating conditions for each corridor are projected for ten and twenty-year horizons. Beyond the twenty-year planning period, the TCR identifies the Ultimate Transportation Corridor (UTC) to ensure that adequate right-of-way is preserved for ultimate facility projects. While the ten and twenty-year plans consider funding issues, the UTC does not.

This report is prepared by Caltrans' staff in cooperation with the regional and local agencies that have jurisdiction within this corridor. The objective of the TCR is to have local, regional, and state consensus on route or corridor concepts, improvement priorities, and planning strategies. This document provides concept information only and does not determine policy.

The TCR will be updated as needed, as conditions change, or as new information is obtained.

ROUTE DESCRIPTION

State Route (SR) 140 is an east/west corridor that begins at Interstate Route 5 (I-5), west of the city of Gustine in Merced County, and terminates at the Yosemite National Park boundary near El Portal in Mariposa County. The corridor is 101.6 miles long and lies entirely within District 10. It traverses the flat agricultural land of the Valley through Merced County and continues southeast through the foothills of Mariposa County. SR-140 is a year-round highway serving the cities of Gustine and Merced, and the communities of Planada, Catheys Valley, Mariposa, Midpines, Briceburg, and El Portal. Along this corridor are recreational areas such as San Luis National Wildlife Refuge, Kesterson National Wildlife Refuge, the Sierra National Forest, and Yosemite National Park.

Except for a short four-lane section through the city of Merced, SR 140 is a two-lane conventional highway for its entire length. A route break of 1.9 miles occurs in the City of Merced where it is concurrent with Route 99. It also runs concurrent with State Route 49 through a portion of Mariposa County, from the South Junction of SR 49 through the North Junction of SR 49. SR 140 passes through flat terrain in Merced County, changes into rolling terrain in Mariposa County and then changes into mountainous terrain as it approaches the Yosemite Valley.

Route Designations

Route 140 was added to the Freeway and Expressway System in 1959. It is classified as an officially designated State Scenic Highway from the South Junction of SR 49 to the boundary of Yosemite National Park, with the exception of PM 21.22 to PM 23.21 and PM 33.84 to PM 51.56 in Mariposa County where it is eligible for Scenic Highway status. It is not included in the Subsystem of Highways for the Movement of Extralegal Permit Loads (SHELL) Route system, but it is identified as a STAA (STAA) Terminal Access Route from Gustine to Midpines. From the east urban limits of the City of Merced to Yosemite, it is included in the 1989 Interregional Road System (IRRS) and was recommended to the Federal Highway Administration (FHWA) as a Highway of National Significance. Except for a segment that passes through the City of Merced, which is classified as a Principal Arterial, the remainder of the route has the Federal functional classification of a Minor Arterial. However, District 10 has recommended to the Federal Highway Administration (FHWA) that the entire route be reclassified to a Principal Arterial highway.

Projects to build new highways or add capacity to existing highways are funded through the State Transportation Improvement Program (STIP). Legislation approved in 1998 (Senate Bill 45) specifies that Regional Transportation Planning Agencies such as the Merced County Association of Governments (MCAG), will have decision-making authority over 75% of STIP funds, while the State makes funding decisions for the remaining 25% of the funds. This legislation further specifies that the State's 25% share could only be used on State highways that are part of the Interregional Road System (IRRS). Some segments of SR 140 in Merced County are not designated as an IRRS route; therefore, it does not qualify for funding consideration as part of the State's

25% share of STIP funds. However, capacity improvements on those segments can be funded as part of the STIP funds available to MCAG.

Purpose of Route

From Interstate 5 (I-5) to the city of Merced, SR 140 is primarily used for interregional travel with heavy emphasis on agricultural traffic. It is an important access route to Yosemite National Park. For the cities of Gustine and Merced, it serves as a local commuter route. From Merced to Yosemite National Park, the primary use is for interregional travel with emphasis on recreational and commute traffic. Transportation demands continue to increase each year becoming increasingly more difficult during peak periods. SR 140 is also a popular route used by bicycle tourists traveling to and from Yosemite, and serves local bicycle commuters in the various communities.

During the winter months, SR 140 is the preferred route into Yosemite National Park as alternate routes are subject to heavier snowfall because of their higher elevations. The section of SR 140 between the Merced County line near Planada and Yosemite National Park is sometimes referred to as the "All Year Highway."

Several of the Gateway communities that serve as access points to the park have pooled resources to implement the "Yosemite Area Regional Transit System" (YARTS), which began running regional transit buses in May of 2000. YARTS serves the counties of Mariposa, Merced, and Mono, and offers travelers a dependable alternative to driving throughout the region, including Yosemite National Park, while safeguarding the area's wealth of natural resources and maintaining the economic viability of the surrounding communities.

ROUTE CONCEPT SUMMARY/RATIONALE

The route concept is comprised of two factors:

- 1) The minimum Level of Service (LOS) tolerable for peak hour conditions.
- 2) The type of facility necessary to provide the concept LOS.

(Refer to Appendix 2 for the designation of LOS levels.)

State Route 140 Concept

Our concept Level of Service for the 20-year planning horizon for State Route 140 is "D" for the non-IRRS segments and the urban areas of Merced and "C" for all IRRS segments. The Ultimate Transportation Corridor (UTC) and the concept facility needed to meet our concept LOS for each segment is detailed in the following section. Some segments with projected inadequate LOS will require the addition of passing lanes in order to improve their operating conditions.

Passing lanes on two-lane rural highways have two important functions: 1) to reduce delays at specific bottleneck locations such as steep upgrades, and 2) to improve the overall traffic operation by breaking up traffic platoons and reducing delays caused by inadequate passing opportunities over substantial lengths of the highway. The locations and configuration of passing lanes will vary depending on needs, terrain, and other constraints. Passing lanes can include a range of design alternatives that can facilitate achieving the concept LOS.

As the need for passing opportunities grows with increase in traffic volume, passing lanes should be placed at intervals as low as 3 to 5 miles. Where there is a need for only moderate operations, passing lanes should be placed with 10 to 15 mile spacing. The optimal length of a passing lane to reduce platooning is usually 0.5 to 1 mile including the tapers or transitional sections.

Merced County

Segment 1

Our concept facility for Segment 1 (PM 0.0–4.19) is a 2-lane conventional highway.

The LOS for this segment is projected to be adequate for the 20-year planning horizon. With a low traffic volume and the highest truck traffic (13%) along the entire segment, a need may arise for improvements to keep this roadway segment in good condition and to extend its service life. The Ultimate Transportation Corridor (UTC) for this segment is a 4-lane conventional highway.

Segment 2

Our concept facility for Segment 2 (PM 4.19–6.06) is a 2-lane conventional highway.

The LOS for this segment is projected to be adequate for the 20-year planning horizon. However, there may be a need for turning lanes and other improvements for this segment, but that will depend on developments in the city of Gustine and adjoining local roads. The UTC for this segment is a 4-lane conventional highway.

Segment 3

Our concept facility for Segment 3 (PM 6.06-16.22) is a 2-lane conventional highway.

The projected LOS will be adequate for the next 20-year planning horizon. The UTC for this segment is a 4-lane conventional highway.

Segment 4

Our concept facility for Segment 4 (PM 16.22-23.44) is a 2-lane conventional highway.

The projected LOS will be adequate for the next 20-year planning horizon. The UTC for this segment is a 4-lane conventional highway.

Segment 5

Our concept facility for Segment 5 (PM 23.44-29.60) is a 2-lane conventional highway.

The projected LOS will be adequate for the next 20-year planning horizon. The UTC for this segment is a 4-lane conventional highway.

Segment 6

Our concept facility for Segment 6 (PM 29.60-35.78) is a 4-lane conventional highway.

The LOS for this segment is projected to be inadequate within the 10-year planning horizon. This projected deficiency is identified in both MCAG Regional Transportation Plan and the Merced/Atwater SR-99 Corridor Major Investment Study (MIS). The UTC for this segment is a 4-lane expressway.

Segment 7

Our concept facility for Segment 7 (PM 35.78-37.4) is a 4-lane conventional highway with continuous left-turn lanes and/or left turn pockets, as needed.

Presently, the LOS for this segment is inadequate and is projected to worsen within the 20-year planning horizon unless improvements are made. There is a programmed project to widen a portion of this segment from PM 36.482 to 37.0 to a 4-lane conventional highway. In order to widen this segment into a 4-lane highway with a continuous left-turn lane, additional right-of-way within this segment will need to be acquired. Right-of-way acquisition along this segment will be costly and will constrain any future widening

improvements. A "Right-of-Way" study would be necessary to provide Caltrans, local agencies, and the public with information regarding the impact a proposed project would have on all abutting properties within the proposed alignment. From post mile 35.79 through 43.70, the "Atchinson, Topeka and Santa Fe Railroad" tracks run parallel to this highway; therefore severely limiting the ability to acquire right-of-way. Any acquisition of right-of-way will be in accordance with Federal and State procedures. The UTC for this segment is a 4-lane Expressway with left turn pockets, as needed.

Segment 8

Our concept facility for Segment 8 (PM 37.4-43.70) is a 4-lane conventional highway with continuous left turn lanes and/or left turn pockets, as needed.

The LOS for this segment will become deficient in the next 10 years. There may be a need to acquire additional right-of-way within this segment in order to widen it to a 4-lane expressway with continuous left turn lanes. The UTC for this segment is a 4-lane expressway with left turn pockets, as needed. The proposed Merced Campus Parkway is likely to impact this corridor. Additional improvements for this area will be driven by the exact alignment of the Campus Parkway and the rate of development along this corridor due to UC Merced and local roads. Right-of-way acquisition along this segment will be costly and will constrain any future widening improvements. Again, a right-of-way study would be necessary to provide Caltrans, local agencies, and the public with information regarding the impact a proposed project would have on all abutting properties within the proposed alignment. From post mile 35.79 through 43.70, the "Atchinson, Topeka and Santa Fe Railroad" tracks run parallel to this highway, which would impose severe limitations on the ability to acquire right-of-way. Any acquisition of right-of-way will be in accordance with Federal and State procedures.

Segment 9

Our concept facility for Segment 9 (PM 43.70-50.30) is a 4-lane conventional highway.

The LOS is projected to be below the concept LOS within the 10-year horizon. Widening of facility will provide relief. This segment serves recreational and inter-city travel, and the traffic volume is subject to seasonal fluctuations. The UTC for this segment is the same as the concept.

A Project Study Report (PSR) would be required to determine the precise location and length of the passing lanes as the need arises. A right-of-way study may be required depending on the location of the passing lanes. Any acquisition of right-of-way will be in accordance with State and Federal procedures.

Mariposa County

Segment 1

Our concept facility for Segment 1 (PM 0.0-9.50) is a 4-lane conventional highway.

The LOS is projected to be below the concept LOS within the 10-year horizon. However, there is a proposed project (Mariposa County Regional Transportation Plan 1999, PM 0-5.8) that is intended to alleviate current and future traffic congestion by widening shoulders and adding passing lanes. This proposed project will also improve system continuity and safety on this portion of SR 140 with enhanced capacity, and curve corrections that will improve sight distance. Widening this segment into a 4-lane facility is another option but will result in under-utilization of capacity during all but peak summer periods. The UTC for this segment is the same as the concept.

Adding passing lanes will require PSRs. The PSR will include the analysis of environmental concerns and the right-of-way needs. The right-of-way study will be prepared to provide Caltrans, local agencies and the public with information regarding project impacts and would be in accordance with State and Federal procedures.

Segment 2

Our concept facility for Segment 2 (PM 9.50-21.22) is a 2-lane conventional highway with left turn lanes, passing lanes, and turnouts, as needed.

The concept LOS is projected to be deficient within the 10-year horizon. A 4-lane conventional highway is needed to meet our 2010 concept LOS, but due to the highly scenic qualities of the area and to the significant impact widening would have upon the communities, left turn lanes, passing lanes and turnouts are low-cost alternatives that can be used to achieve operational improvements rather than lane widening. A passing lane is planned by the Mariposa County Regional Transportation Plan, (PM 16.6-19.1), to provide more passing opportunities and reduce delays. This segment serves mostly recreational travel that has daily and seasonal variations. Travel time is reduced during peak periods by slow-moving recreational vehicles. The UTC for this segment is a 4-lane conventional highway.

A right-of-way study would be a necessary to provide Caltrans, local agencies, and the public with information as to what affect a proposed project would have on the residential and non-residential occupants within the proposed alignment.

Segment 3

Our concept facility for Segment 3 (PM 21.22-22.00) is a 4-5 lane conventional highway or bypass.

The concept LOS is projected to be deficient within the 10-year horizon. A 4-5 lane conventional highway or bypass is needed to meet our 2010 concept LOS. Due to the highly scenic qualities of the area and to the significant impact widening would have upon the communities, left turn lanes, passing lanes and turnouts are low-cost alternatives that can be used to achieve operational improvements rather than lane widening. An alternative route is planned by the Mariposa 2001 Regional Transportation Plan on SR-49/140. The plan also identifies new alignment and intersection improvements at SR-49 and SR-140.

This corridor serves recreational travel and experiences poor operational conditions during the peak recreation season. Development along this segment makes acquiring additional right-of-way for widening into a 4-lane highway impractical and costly. SR-140 traverses through downtown Mariposa where many of the existing buildings are classified as historical structures. The UTC for this segment is the same as the concept.

Again, a right-of-way study would be a necessary to provide Caltrans, local agencies, and the public with information as to what affect a proposed project would have on the residential and non-residential occupants within the proposed alignment.

Segment 4

Our concept facility for Segment 4 (PM 22.0-51.8) is a 2-lane conventional highway with passing lanes and paved shoulders.

The concept LOS is projected to be deficient within the 10-year horizon. A 4-lane conventional highway is needed to meet our 2010 concept LOS, but due to the highly scenic qualities of the area and to the significant impact widening would have upon the communities, left turn lanes, passing lanes and turnouts are low-cost alternatives that can be used to achieve operational improvements rather than lane widening. The present LOS for this segment is inadequate and is projected to experience more delays during peak periods. However, the planned construction of an eastbound passing lane (Mariposa County Regional Transportation Plan, PM 22.0–23.2) and the YARTS transit project may provide relief. Traffic on this segment is mostly recreational and highly seasonal. Although it does not near capacity, it does lack passing opportunities. Slope and horizontal curve alignments reduce speed and contribute to delays during weekends and peak summer months. The Mariposa Local Transportation Commission has advised that this portion of SR-140 is frequently traveled by bicyclists. Paved shoulders will provide increased safety for bicyclists accessing the Merced River Canyon. The UTC for this segment is a 4-lane conventional highway.

Much of this segment parallels the Merced River, which has recently been listed as wild and scenic. Thus, the impact to the Merced River Canyon from any proposed project on SR-140 would need to be adequately explored and addressed.

Again, a right-of-way study may be required depending on the location of the passing lanes. Any acquisition of right-of-way will be in accordance with State and Federal procedures.

Segment 5

Our concept facility for Segment 5 (PM 29.70-51.8) is a 2-lane conventional highway with passing lanes and paved shoulders.

The concept LOS is projected to be deficient within the 10-year horizon. A 4-lane conventional highway is needed to meet our 2010 concept LOS, but due to the highly scenic qualities of the area and to the significant impact widening would have upon the communities, left turn lanes, passing lanes and turnouts are low-cost alternatives that can be used to achieve operational improvements rather than lane widening. The present LOS for this segment is inadequate and is projected to experience more delays during peak periods. However, the YARTS transit project may provide relief. Traffic on this segment is mostly recreational and highly seasonal. Although it does not near capacity, it does lack passing opportunities. Slope and horizontal curve alignments reduce speed and contribute to delays during weekends and peak summer months. The Local Transportation Commission has advised that bicyclists frequently travel this portion of SR-140. Paved shoulders will improve safety for bicyclists and motorists on this segment of the highway. The UTC for this segment is a 4-lane conventional highway.

Much of this segment parallels the Merced River, which has recently been listed as wild and scenic. Thus, the impact to the Merced River Canyon from any proposed project on SR-140 would need to be adequately explored and addressed.

Again, a right-of-way study may be required depending on the location of the passing lanes. Any acquisition of right-of-way will be in accordance with State and Federal procedures.

Trucks

In Merced County, the average daily traffic (ADT) for truck ranges from 6 percent (east of Merced) to 13 percent (west of Merced). In this segment, most of the trucks present in the traffic stream are "farm-to-market" and serve the agriculture-related industries in this region. In Mariposa County, trucks account for 5 percent of the ADT and a sizable proportion of this truck traffic consists of recreational vehicles visiting the Yosemite National Park. SR 140 provides an east-west link between I-5 and SR 99 and as tourist-oriented service industries expand along this corridor, it will be prudent to keep this route in serviceable condition and to avoid major reconstruction costs.

Major Investment Study (MIS) SR-99/Regional Transportation Plan (RTP)

The 1997 Merced /Atwater Highway SR 99 Corridor Major Investment Study Common Project List includes transportation improvements to SR 140. SR 140 being an integral part of the study area, the MIS planning process identifies widening Yosemite Parkway to 4-lanes from Parsons to Santa Fe railroad as part of year 2020 capacity enhancing improvements. Also, the 1998 RTP Road Improvement Project List includes the construction of a new 4-lane expressway from Applegate Avenue to Thornton Road.

Planned Projects

County	Route	Post Miles	Description	Designation
Merced	SR-140	4.3-11.7	<u>Mud Slough Rehab</u> Structural Section Repair and Widen Three Bridges	Inactive SHOPP 2001
Merced	SR-140	34.5-35.8	AC Overlay and Widen Shoulders from El Capitan Canal to SR-99	2003 SHOPP Candidate
Merced	SR-140	37.5	Construct I/C and O/H near Mission Ave. extending 7.25 km N to Yosemite Ave. Cross SR-140 Between Harley Canal & Kibby Rd.	2002 STIP Candidate
Mariposa	SR-140	0.0-5.8	Widen and possible passing lane	Regional Transportation Plan 2001
Mariposa	SR-140	0.0-5.9	Miles Creek Improvements Improve roadway alignment and construct shoulders	2002 STIP PID
Mariposa	SR-140	16.6-19.1	Construct eastbound passing lane Agua Fria to Martin Rd.	Regional Transportation Plan 2001
Mariposa	SR-140	22.0-25.1	Construct eastbound passing lane Mariposa Town to Midpines Summit	Regional Transportation Plan 2001
Mariposa	SR-140		Left turn lane at Smith Road	Regional Transportation Plan 2001
Mariposa	SR-140		Left-turn lane at Yaqui Gulch Rd.	Regional Transportation Plan 2001
Mariposa	SR-140		Left-turn lane at Mount Bullion cutoff	Regional Transportation Plan 2001
Mariposa	SR-140		Realign Bear Creek to Briceburg	Regional Transportation Plan 2001

Programmed Projects

County	Route	Post Miles	Description	Designation
Merced	SR-140	27.0-30.2	Applegate Rehab	1998 SHOPP
			AC Overlay and Widen Shoulder	PS&E/R/W
Merced	SR-140	32.9-34.5	Bear Creek/El Capitan Bridge	1998 SHOPP
			Replace and Widen Bridges	Construction
Merced	SR-140	35.3-35.5	Construct an additional EB lane in	2003 Minor
			the City of Merced from 0.45 km	
			W/of SR-99	
Merced	SR-140	35.8-35.9	Install Traffic Light at Glen Motel	2001 Minor
			Dr and east 17 th Street	
Merced	SR-140	35.9-36.6	Provide two-way left turn lane on	2002 Minor
			Rte 140 in the City of Merced	
Merced	SR-140	36.7-37.5	Bradley OH Replacement Bridge	2000 SHOPP
			Replacement Widen - 2 Lanes	PA&ED
			w/shoulders .1 km w/o Baker Dr. to	
			.2 km e/o Santa Fe Ave.	

Merced	SR-140	36.5-37.6	Bradley Overhead Widening	2000 STIP
			Replacing Bradley O/H Bridge	PA&ED
			widen to 4-lanes from Marthella	
			Ave. to .3 km e/o Santa Fe Ave.	
Merced	SR-140	40.7	Construct Left Turn Channelization	2003 Minor
			and Flashing Beacons at Arboleda	
			Dr.	
Mariposa	SR-140	13.3-13.8	Construct turnout and pave	2004 Minor
			shoulder w/of Mt. Bullion Cutoff	
Mariposa	SR-140	17.1-17.1	Install RT turn Channelization @	2001 Minor
			fiddletown in Plymouth at the	
			intersection of Yaqui Gulch Rd.	
Mariposa	SR-140	17.8-17.9	Extend Turnout nearr Rte. 140 and	2002 Minor
			Yaqui Gulch Rd.	
Mariposa	SR-140	21.2	Update signs & Install Flashing	2001 Minor
			Beacons at Jct. Of Rte. 140/49 and	
			Jct. Of Rte. 120/108	

RIGHT-OF-WAY ISSUES AND ENVIRONMENTAL CONDITIONS

Land use along SR 140 includes agriculture, single and multi-family residential, commercial, and light and heavy industrial. The predominant land use is agriculture, except for the city of Merced and the towns of Gustine and Mariposa, where residential and commercial developments may limit right-of-way acquisitions.

SR 140 will face numerous right-of-way issues, such as proximity to rail lines and architectural issues such as historical structures. Right-of-way issues and environmental specialty studies may be required in most cases where widening of SR 140 is considered.

In all cases where widening SR-140 is considered, the full range of environmental specialty studies will be required. These studies will include: cultural, biological, water quality, air quality, noise, socioeconomics, hazardous waste, visual and cumulative impacts of all projects along the corridor. In addition, where areas have been designated as a floodplain, assessments of the impacts of encroachments will be required. Any project to expand capacity along SR-140 will require extensive environmental review to comply with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Therefore, planners and project managers should include sufficient time and resources for environmental review of these projects that will meet our future transportation needs on this facility.

AIR QUALITY

SR 140 runs west/east traversing both the San Joaquin Valley and Mountain Counties' Air Basins. Mariposa County is part of the Mountain Counties' Air Basin and is unclassified in respect to attainment for carbon monoxide (CO) and for particulate matter ten microns (PM-10) or greater, and non-attainment for ozone for the 8-hour standard. Merced County being part of the San Joaquin Valley Air Basin is currently designated as a non-attainment area for ozone based on the Federal one hour standard and as a non-

attainment area for particulate matter (PM-10), and unclassified for carbon monoxide (CO).

State and federal laws require that all state and regional transportation plans include conformity with the EPA's adopted State Implementation Plan (SIP) for air quality. The Clean Air Act Amendments of 1990 established a requirement that transportation plans, programs, and projects conform to the purpose of State Implementation Plans for the attainment of the National Ambient Air Quality Standards (NAAQS). Compliance with the conformity rule mandates that adjacent non-attainment areas work together towards practical attainment strategies, such as the cooperation among the local transportation planning agencies (TPAs) within each county, Caltrans, and the respective Unified Air Pollution Control Districts (UAPCD).

Due to Valley-wide non-attainment, the eight TPAs approved and signed a Memorandum of Understanding (MOU) in September 1992 to develop a comprehensive planning process. This planning body developed another MOU with the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). The major focus of this comprehensive planning agreement was to reduce emissions through:

- Development and analysis of transportation control measures that each county could reasonably implement.
- Identification of effective transportation models that would generate a consistent analysis and reporting base.
- Satisfaction of conformity requirements for State and Federal funds, especially TEA-21 funds.

ALTERNATIVE TRANSPORTATION

Fixed Route Transit

In Merced County, the Merced County Transit operates "The Bus" which is a consolidated countywide public transit system that serves the entire county. It provides regular bus service within the City of Merced and a daily shuttle bus service from the Merced Transpo Center to Planada along SR 140. The Transpo Center is a multi-modal transportation center located in Merced that serves as a central hub or interface which facilitates connections between public transit and private bus lines.

At a regional level, Merced County provides a partially subsidized fixed-route bus service over SR 140 daily from Merced through Mariposa to Yosemite Park. Merced Transportation Company & VIA Charter Lines is a private business enterprise that provides transportation services on a charter basis. This company operates 45 buses of varying types and sizes that service the community daily, using fixed routes. The Greyhound –Trailways bus line, a combined national bus carrier, provides inter-city service in and throughout the County with two bus depots located in Merced and Los Banos.

With the development of the Campus Parkway, and the planned growth in the northeastern part of the city, MCAG's current Overall Work Plan includes revamping the short-range transit service in order to accommodate the projected needs.

In Mariposa County, transit options consist of fixed route service provided as part of the Yosemite Area Regional Transportation Strategy (YARTS) and demand response to Diala-Ride. Mariposa County's fixed route bus service is provided by Via Bus Line in coordination with the YARTS program. YARTS provides public transit services from all of the gateways to Yosemite. Currently, Yosemite Gray Line, VIA Bus Line, and the 140 Express provide daily bus service from the city of Merced to Mariposa and Yosemite Park. YARTS buses also connect with Amtrak and Greyhound service in Merced.

Rail

In Merced County, the Atchison, Topeka, and Santa Fe (ATSF) operates a rail line that runs parallel and within close proximity of SR 140 from Santa Fe Ave to Plainsburg Rd. It supports Amtrak passenger rail service that operates four daily "San Joaquin" trains from Bakersfield to Oakland and has a station in Merced. Connecting bus services are provided to other destinations including Yosemite National Park as well as long-distance nationwide trains. Rail passenger service on Amtrak is expected to increase in the future within Merced County. The San Joaquin Valley Railroad (Kyle Railways Inc.) operates a regional rail freight service between Tulare, Fresno, and Kings Counties on 125 miles of leased Southern Pacific branch lines connecting outlying areas to mainline carries.

In Mariposa County, Amtrak provides a combination of train and bus service from Merced to Mariposa, Midpines, El Portal, and Yosemite National Park.

Airports

The Merced region has five publicly owned public use airports, Gustine Airport, Castle Airpark, Los Banos Municipal Airport, and Merced Municipal Airport. The Merced Municipal Airport is the only air carrier service providing commercial air service and freight air cargo service. According to criteria used by the Civil Aeronautics Board, it is the only regionally significant airport in the county. With a runway length of 5,904 feet, it is capable of handling turbo jet aircraft.

The former Castle Air Force Base located in Merced County was closed in 1995 due to military defense cutbacks. The aviation portion of the base was converted into a civilian general aviation airport referred to as "Castle Airpark." A new diversified facility is under consideration, which could include private aviation, commercial passenger service, aviation maintenance, aviation education, and possibly agricultural air cargo along with a business center.

In Mariposa County, the Mariposa Yosemite Airport serves as the only publicly owned airport. It is equipped with a flight service station, control area, flight instructors, and charter air service. The airport is located approximately 4.5 miles northwest of the Community of Mariposa and is owned and operated by the county. The airports fall within the General Aviation category. Access to the airport is provided via State Route 49.

Bicycle Facility

Merced County has a series of bike paths, lanes, and routes. Merced County Association of Governments has a Bicycle Advisory Committee whose purpose is to promote a need for safety education along with planning, funding, and development. They also assist cities and communities in planning for bikeways. The urban area of Merced has an extensive bike path system along the SR 140 corridor, which consists of both Class I and Class II Bikeways. Bike Paths are classified into three types. Class I Bike Paths provide separate right-of-way designated for the exclusive use of cyclists or pedestrians. Class II Bike Lanes provide a striped lane for one-way bike travel on a street or highway. Class III Bike Route provides a right-of-way for shared use with pedestrians or motorists. Class II bike lanes are within the urban area of Merced. SR 140 is an identified route in the "bicycle route systems" of both Merced County and Mariposa County Bike Plans and are elements of the respective Regional Transportation Plans.

PARK and RIDE LOTS

Presently, there are no Park and Ride lots along SR 140. However, opportunities for Park and Ride lots along this corridor should be investigated especially for the cities of Merced, and Mariposa. A Park and Ride facility in these two locations has the potential to complement the YARTS effort in demonstrating the feasibility of a voluntary transit service from the surrounding gateway communities to the Yosemite Park. Additionally, a Park and Ride program along this corridor will be an integral part of other Transportation Control Measures (TCM) designed to reduce vehicle miles traveled thereby reducing motor vehicle emissions.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Non-recurring congestion and delays are attributed to unplanned incidents such as traffic accidents, stalled vehicles, or special events. This non-recurring congestion can be reduced by improving incident management and reducing the number of incidents through an intelligent transportation system (ITS). ITS is designed to identify non-recurring incidents and remove them from the freeway as quickly and efficiently as possible. ITS also provides benefits for safety, traveler information, and congestion management through message boards, ramp metering, and automated warning systems.

Presently, SR 140 has one operating Highway Advisory Radio (HAR) that is located at the north junction of Highways SR 49 and SR 140 in Mariposa. HAR is part of the Yosemite Area Traveler Information (YATI) system that provides Yosemite area travelers with accurate, real time information about Yosemite National Park and the

surrounding regions. It is located at the north junction of Highways SR 49 and SR 140 in Mariposa. HARs are also planned for two other junctions, where SR 140 interchanges with both I-5 and SR 99 in Merced County. In addition, portable Changeable Message Signs (CMS) are used on this route to provide timely safety information to road users. Other ITS related projects designed to improve trip quality planned for this corridor are summarized on the following page.

Planned ITS-related Projects

County	Route	Post Mile	Description	
Mer	140	1.10	Changeable Message Sign(CMS)/Weather Station/Loops	
Mer	140	13	Highway Advisory Radio(HAR) and Flashing Beacons	
Mer	140	34.52	Changeable Message Sign (CMS)/Weather	
Mer	140	35.87	Changeable Message Sign (CMS)/Weather Station	
Mer	140	42.10	YATI Sign/Changeable Message Sign(CMS)	
Mpa	140	PM 22.01	YATI Sign, Changeable Message Sign (CMS),	
Mpa	140	PM 22.01	YATI Highway Advisory Radio (HAR).	

Scenic Value

State Route 140 is classified as a scenic route from Mariposa to the foothills of the Yosemite National Park. The natural beauty, mountainous terrain, and many vista points along this portion of SR 140 confer a pleasing appearance and make driving a pleasurable experience especially for tourists visiting the National Park. This corridor serves mostly recreational travel since it serves as one of the access points to Yosemite National Park.

In order to maintain and enhance the scenic beauty and value of this route, development projects should be planned so as to have minimum impact to the natural environment. Any enhancement project should minimize the destruction of desirable vegetation. In the planning and location of passing lanes, within this corridor, scenic value must be considered along with other factors such as safety, utility, and cost.

SR 140: MERCED COUNTY – SEGMENT 1 FACT SHEET

Location PM 0.00 - 4.19 From I-5 – To Route 33.

Length 4.19 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



Traffic Forecast Data for existing 2-Lane Conventional Highway Average Highway Speed 60 mph

Average ingilitary speed of inpil					
	1997	2010 w/o	2020 w/o		
	Existing_Facility	Improvement	Improvements		
LOS	A	В	В		
V/C	0.06	0.12	0.14		
ADT	1,200	2,600	3,000		
Peak Hour Volume	103	240	276		
Peak Hour Dir. Split	60/40	60/40	60/40		
% Trucks	13%	13%	13%		

Concept Facility (2020) 2-lane conventional; LOS D

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction Merced County Association of Governments

Planned/Programmed Projects: There are no planned or programmed projects within this segment.

Intelligent Transportation System (ITS) Proposed Projects

PM 1.10 Changeable Message Sign (CMS)/Weather Station/Loops, 2005/06

System Designations

Yes Freeway/Expressway System

No National Highway System (NHS) No Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway

Yes Accessible to Bicycles

Right-of-Way/Shoulder Information

The right-of-way ranges from 60 to 100 feet, however 60 feet is the majority width for this route segment. The paved shoulder width ranges from 0 to 8 feet on each side of the roadway. The average shoulder width is 4 feet. Right-of-way acquisition will be required in order to widen this segment.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	None	
Wetlands	Yes	Low Sensitivity
Endangered Species:	Yes	High Sensitivity
Species of Concern:	Yes	Moderate/High Sensitivity
Archaeological	Yes	Low Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

Actua	al Accident Rate	Statewide Average Rate		
Fatal & Injury Total (Includes Property		Fatal & Injury	Total (Includes Property	
Damage only)			Damage only)	
1.42 2.64		.60	1.23	

Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 2 FACT SHEET

Location PM 4.19 – 6.06 From SR 33 – To Gustine (E SR 33).

Length 1.87 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsYesTerrainFlat



Traffic Forecast Data 2-Lane Conventional Highway Average Highway Speed 60 mph

	Tiverage Inghiit	J 5 P C C C C C C C C C C C C C C C C C C	
	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	С	D	D
V/C	.19	.35	.43
ADT	6,200	11,500	14,200
Peak Hour Volume	500	900	1100
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	11%	11%	11%

Concept Facility (2020) 2-lane, conventional; LOS D

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction City of Gustine, Merced County Association of

Governments

Planned Projects

1 idilied 1 tojects				
Merced	SR-140	4.3-11.7	<u>Mud Slough Rehab</u> Structural	Inactive SHOPP
			Section Repair and Widen Three	2001
			Bridges	

Programmed Projects: There are no programmed projects within this segment.

System Designations

Yes Freeway/Expressway System No National Highway System (NHS) No Interregional Road System (IRRS)

No- High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60-300 feet, however 60 feet is the majority width. The paved shoulder width ranges from 0 to 16 feet on each side of the roadway. The average shoulder width is 10 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	None	
Wetlands	Yes	Low Sensitivity
Endangered Species:	Yes	High Sensitivity
Species of Concern:	Yes	Moderate to High Sensitivity
Archaeological	Partly Surveyed	Low Sensitivity (Canals may be
		historic resources)

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
1.11	2.62	.96	2.34

Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 3 FACT SHEET

Location PM 6.06 – 16.22 From Gustine (E SR 33) – To SR 165/Stevinson.

Length 10.16 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 60 - 65 mph

Tiverage ingilital Speed of the Inpir			
	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	В	С	С
V/C	.12	.26	.32
ADT	3,200	6,700	8,500
Peak Hour Volume	300	600	800
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	11%	11%	11%

Concept Facility (2020) 2-lane, conventional; LOS D

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction Merced County Association of Governments

Planned/Programmed Projects: There are no planned or programmed projects within this segment.

Intelligent Transportation System (ITS) Proposed Projects

PM 13.0 Highway Advisory Radio and Flashing Beacons (HAR)

California Department of Transportation – District 10 Transportation Concept Report

System Designations

Yes Freeway/Expressway System
No National Highway System (NHS)
No Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway

Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60-340 feet, however 60-160 is the majority width. The paved shoulder width ranges from 0 to 8 feet on each side of the roadway. The average shoulder width is 4 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment	
	Carbon Monoxide Suspended	Unclassified	
	Particulate Matter	Non-attainment	
Flood Plain	Within the 100 year flood plain		
Wetlands	Yes	Low to Moderate Sensitivity	
Endangered Species:	Yes	High Sensitivity	
Species of Concern:	Yes	Moderate/High Sensitivity	
Archaeological	Yes	Highly Sensitive Area	

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.45	1.36	.51	1.06

Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 4 FACT SHEET

Location PM 16.22 – 23.44 From SR 165/Stevinson – To Lincoln Blvd

Length 7.22 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 65 mph

Tiverage ingnivaly opeca to inpu				
	1997	2010 w/o	2020 w/o	
	Existing_Facility	Improvement	Improvements	
LOS	В	С	С	
V/C	.12	.25	.31	
ADT	2,900	6,000	7,400	
Peak Hour Volume	300	600	700	
Peak Hour Dir. Split	60/40	60/40	60/40	
% Trucks	10%	10%	10%	

Concept Facility (2020) 2-lane, conventional; LOS D

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction Merced County Association of Governments

Planned/Programmed Projects: There are no planned or programmed projects within this segment.

System Designations

Yes Freeway/Expressway System No National Highway System (NHS) No Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway

Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60-200 feet. The paved shoulder width is 4 feet on each side of the roadway. The average shoulder width is 4 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	Within 100 year flood plain	Flood plain will require
		assessment of encroachment
		impacts.
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	High Sensitivity
Species of Concern:	Yes	Moderate to High Sensitivity
Archaeological	Low Sensitivity	Canals may be historical
		resources

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Stat	ewide Average Rate
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.47	1.01	.49	1.01

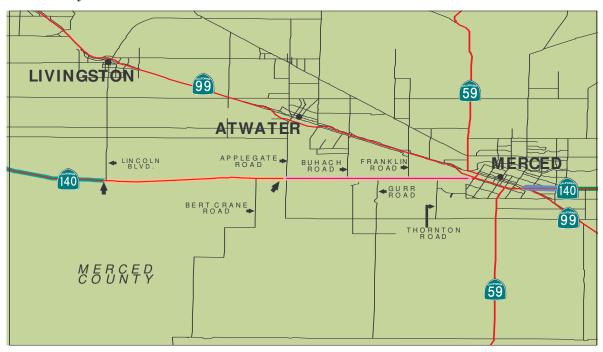
Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 5 FACT SHEET

Location PM 23.44 – 29.60 From Lincoln Blvd – Applegate Rd.

Length 6.16 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



Traffic Forecast Data 2-Lane Conventional Highway Average Highway Speed 65 mph

	1997 Existing Facility	2010 w/o Improvement	2020 w/o Improvements
LOS	R R	C	D
V/C	.14	.29	.47
ADT	3,300	6,700	9,000
Peak Hour Volume	300	650	800
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	10%	10%	10%

Concept Facility (2020) 2-lane, conventional; LOS D

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction Merced County Association of Governments

Planned Projects: There are no planned projects within this segment.

Programmed Projects

1 1 0 ST dillillica	110grammed 110geets				
Merced	SR-140	27.0-30.2	Applegate Rehab	1998 SHOPP	
			AC Overlay and Widen Shoulder	PS&E/R/W	

System Designations

Yes Freeway/Expressway System No National Highway System (NHS) Interregional Road System (IRRS) No No - High Emphasis Route

No - Focus Route

Strategic Highway Network (STRAHNET) No

STAA Truck Network No

Yes Terminal Access Route for National Truck Network

No Scenic Highway

Yes Accessible to Bicycles

Right-of-Way/Shoulder Information

The right-of-way ranges from 60-160 feet, however 100 feet is the majority width. The paved shoulder width ranges from 0 to 8 feet on each side of the roadway. The average paved shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment		
	Carbon Monoxide Suspended	Unclassified		
	Particulate Matter	Non-attainment		
Flood Plain	Within 100 Year flood plain	Flood plain will require		
		assessment of encroachment		
		impacts.		
Wetlands	Yes	Low to moderate sensitivity		
Endangered Species:	Yes	High sensitivity		
Species of Concern:	Yes	Moderate-high sensitivity		
Archaeological	Partly Surveyed	Low Sensitivity		

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Stat	ewide Average Rate
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.67	1.55	.48	1.00

Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 6 FACT SHEET

Location PM 29.60–35.78 From Applegate Rd. – Merced (SR 99/SR 59)

Length 6.18 miles

Functional ClassificationMinor ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



2-Lane Conventional Highway Average Highway Speed 65 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	В	Е	Е
V/C	.18	.52	.67
ADT	4,500	14,100	18,800
Peak Hour Volume	400	1,200	1,700
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	10%	10%	10%

Concept Facility (2020)

Ultimate Transportation Corridor Local Planning Jurisdiction

4-lane, Conventional highway; LOS D

4-lane, Expressway

Merced County Association of Governments

Planned Projects

Merced	SR-140	34.5-35.8	AC Overlay and Widen Shoulders	2003 SHOPP
			from El Capitan Canal to SR-99	Candidate

Programmed Projects

Merced	SR-140	32.9-34.5	<u>Bear Creek/El Capitan Bridge</u> Replace and Widen Bridges	1998 SHOPP Construction
Merced	SR-140	35.3-35.5	Construct an additional EB lane in the City of Merced from 0.45 km W/of SR-99	2003 Minor

Intelligent Transportation System (ITS) Proposed Projects

PM 34.52 Changeable Message Sign (CMS)/Weather, 2003/04

System Designations

Yes Freeway/Expressway System
No National Highway System (NHS)
No Interregional Road System (IRRS)
No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway

Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60-160 feet, however 100 feet is the majority width. The paved shoulder width ranges from 0 to 8 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	Within 100 Year flood plain	Flood plain will require
		assessment of encroachment
		impacts.
Wetlands	Yes	Low to moderate sensitivity
Endangered Species:	Yes	High Sensitivity
Species of Concern:	Yes	Moderate/High Sensitivity
Archaeological	Partly surveyed	Medium Sensitivity

Traffic Collision Rate

(per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate		
Fatal & Injury Total (Includes Property		Fatal & Injury	Total (Includes Property	
Damage only)			Damage only)	
1.13	3.32	.61	1.32	

Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 7 FACT SHEET

Location PM 35.78 – 37.4 From Merced (SR 99) – To Santa Fe Ave

Length 1.62 miles

Functional Classification Other Principal Arterial Rural/Urban Urban Within City Limits Yes Terrain Flat



Traffic Forecast Data
2-Lane Conventional Highway PM 35.78-36.5
4-lane Conventional Highway PM 36.5-37.6
Average Highway Speed 45 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	D	Е	F
V/C	.50	.85	1.04
ADT	13,100	23,200	28,200
Peak Hour Volume	1,200	2,000	2,500
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	6%	6%	6%

Concept Facility (2020)

4 lane, conventional with continuous left-turn lane and/or left turn pockets, as needed; **LOS D**

Ultimate Transportation Corridor 4-lane, expressway with left turn pockets, as needed

Local Planning Jurisdiction City of Merced, Merced County Association of

Government

Planned Projects: There are no planned projects within this segment.

Programmed Projects

1 rogrammed 1 rojects				
Merced	SR-140	35.8-35.9	Install Traffic Light at Glen Motel Dr and east 17 th Street	2001 Minor
Merced	SR-140	35.9-36.6	Provide two-way left turn lane on Rte 140 in the City of Merced	2002 Minor
Merced	SR-140	36.7-37.5	Bradley OH Replacement Bridge Replacement Widen - 2 Lanes w/shoulders .1 km w/o Baker Dr. to .2 km e/o Santa Fe Ave.	2000 SHOPP PA&ED
Merced	SR-140	36.5-37.6	Bradley Overhead Widening Replacing Bradley O/H Bridge widen to 4-lanes from Marthella Ave. to .3 km e/o Santa Fe Ave.	2000 STIP PA&ED

Intelligent Transportation System (ITS) Proposed Projects

PM 35.87 Changeable Message Sign (CMS)/Weather Station, 2004/05

System Designations

Yes Freeway/Expressway System Yes National Highway System (NHS) No Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway
Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 80-190 feet. The paved shoulder width ranges from 0 to 8 feet on each side of the roadway. The average shoulder width is 5 feet. In order to widen this segment, right-of-way acquisition will be required. A rail line runs parallel to this corridor from PM 35.79 through PM 43.70, severely limiting the acquisition of right-of-way.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	Within 100 year and 500 year	Flood plain will require
	flood plain	assessment of encroachment
		impacts.
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	Moderate Sensitivity
Species of Concern:	Yes	Moderate/High Sensitivity
Archaeological	Partly surveyed	Low Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
2.14	5.50	1.73	4.32

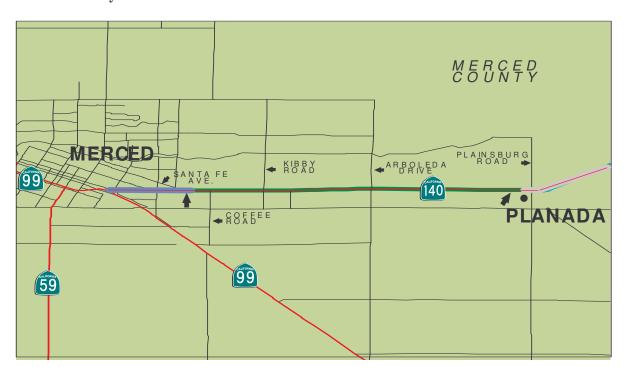
Source: TASAS Database (July 7, 1997 – June 30, 2000)

SR 140: MERCED COUNTY - SEGMENT 8 FACT SHEET

Location PM 37.40 – 43.70 From Santa Fe Ave – To Plainsburg Rd

Length 6.30 miles

Functional Classification Principal Arterial Rural/Urban Urban Within City Limits No Terrain Flat



Traffic Forecast Data 2-Lane Conventional Highway Average Highway Speed 45 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	С	D	Е
V/C	.28	.52	.62
ADT	6,500	12,900	17,000
Peak Hour Volume	600	1,150	1,500
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	6%	6%	6%

Concept Facility (2020) 4-lane conventional with continuous left-turn lane and/or

left turn pockets, as needed; LOS D

Ultimate Transportation Corridor 4-lane Expressway with left turn pockets, as needed

Local Planning Jurisdiction City of Merced, Merced County Association of

Governments

Planned Projects

Merced	SR-140	37.5	Construct I/C and O/H near	2002 STIP
			Mission Ave. extending 7.25 km N to	Candidate
			Yosemite Ave. Cross SR-140	
			Between Harley Canal & Kibby Rd.	

Programmed Projects

Merced	SR-140	36.7-37.5	Bradley OH Replacement Bridge	2000 SHOPP
			Replacement Widen - 2 Lanes	PA&ED
			w/shoulders .1 km w/o Baker Dr. to	
			.2 km e/o Santa Fe Ave.	
Merced	SR-140	36.5-37.6	Bradley Overhead Widening	2000 STIP
			Replacing Bradley O/H Bridge	PA&ED
			widen to 4-lanes from Marthella	
			Ave. to .3 km e/o Santa Fe Ave.	
Merced	SR-140	40.7	Construct Left Turn Channelization	2003 Minor
			and Flashing Beacons at Arboleda	
			Dr.	

Intelligent Transportation System (ITS) Proposed Projects

PM 42.10 YATI Sign/Changeable Message Sign (CMS).

System Designations

Yes Freeway/Expressway System Yes National Highway System (NHS) Yes Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

Yes Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-Way/Shoulder Information

The right-of-way ranges from 60-110 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required. A rail line runs parallel to this corridor from PM 35.790 through PM 43.700, severely limiting the acquisition of right-of-way.

Air Quality/Environmental Status

An Quanty/Environmental Status		
Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	Near the 100 Year flood plain	Flood plain will require assessment of encroachment impacts.
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	Moderate Sensitivity

Species of Concern:	Yes	Moderate/High Sensitivity
Archaeological	Partly surveyed	Low Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

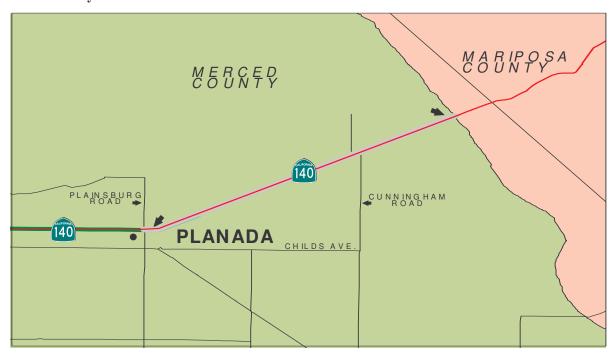
Actual Accident Rate		Statewide Average Rate		
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property	
	Damage only)		Damage only)	
.66	1.37	.61	1.28	

SR 140: MERCED COUNTY - SEGMENT 9 FACT SHEET

Location PM 43.70 – 50.30 From Plainsburg Rd – To Mpa Co Ln

Length 6.60 miles

Functional ClassificationPrincipal ArterialRural/UrbanRuralWithin City LimitsNoTerrainFlat



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 45 mph

Average Highway Speed 45 mpn				
	1997	2010 w/o	2020 w/o	
	Existing_Facility	Improvement	Improvements	
LOS	В	D	D	
V/C	.18	.33	.38	
ADT	3800	8000	9000	
Peak Hour Volume	400	700	800	
Peak Hour Dir. Split	60/40	60/40	60/40	
% Trucks	5%	5%	5%	

Concept Facility (2020) 4-lane, conventional highway, LOS C

Ultimate Transportation Corridor 4-lane, conventional

Local Planning Jurisdiction Merced County Association of Governments

Planned/Programmed Projects: There are no planned or programmed projects within this segment.

System Designations

Yes Freeway/Expressway System
Yes National Highway System (NHS)
Yes Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60-150 feet. The paved shoulder width ranges from 0 to 5 feet on each side of the roadway. The average shoulder width is 1 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Non-attainment
Flood Plain	Near the 100 year flood plain	
Wetlands	Yes	Low Sensitivity
Endangered Species:	Yes	Moderate Sensitivity
Archaeological	Partly Surveyed	Medium Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

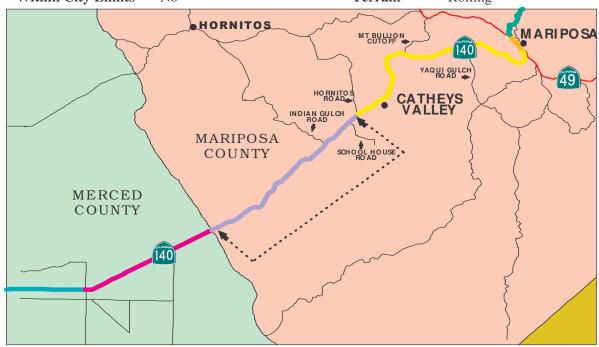
Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.42	.67	.49	1.01

SR 140: MARIPOSA COUNTY - SEGMENT 1 FACT SHEET

Location PM 0.00 – 9.50 From Mer Co Ln – To Hornitos Rd

Length 9.50 miles

Functional ClassificationPrincipal ArterialRural/UrbanRuralWithin City LimitsNoTerrainRolling



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 60 mph

	11 totage 111ght to	J Speed of Impir	
	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	С	Е	Е
V/C	.26	.44	.59
ADT	4,300	6,500	8,300
Peak Hour Volume	500	800	1,100
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	5.0%	5.0%	5.0%

Concept Facility (2020) 4-lane, conventional highway, LOS C

Ultimate Transportation Corridor 4-lane, conventional highway

Local Planning Jurisdiction Mariposa County Transportation Commission

Planned Projects

County	Route	Post Miles	Description	Designation
Mariposa	SR-140	0.0-5.8	Widen and possible passing	2001 Regional
			lane	Transportation Plan

Mariposa	SR-140	0.0-5.9	Miles Creek Improvements	2002 STIP
			Improve roadway	PID
			alignment and construct	
			shoulders	

Programmed projects: No programmed projects for this segment

System Designations

Yes Freeway/Expressway System
Yes National Highway System (NHS)
Yes Interregional Road System (IRRS)

No - High Emphasis Route No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 80 to 200 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required. This segment traverses a rolling terrain.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Unclassified
Flood Plain	Within 100 year flood plain	
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	Moderate Sensitivity
Archaeological	Yes	Medium Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

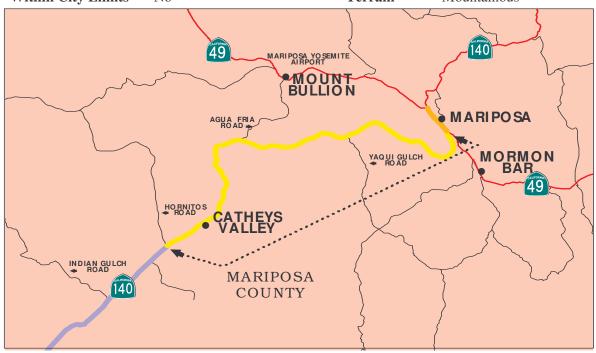
(P == ======== + ======= ===============				
Actual Accident Rate		Statewide Average Rate		
Fatal & Injury Total (Includes Property		Fatal & Injury	Total (Includes Property	
	Damage only)		Damage only)	
.39	.91	.47	.97	

SR 140: MARIPOSA COUNTY - SEGMENT 2 FACT SHEET

Location PM 9.50 – 21.22 From Hornitos Rd – To SR 49 S

Length 11.72 miles

Functional Classification Principal Arterial **Rural/Urban** Rural **Within City Limits** No **Terrain** Mountainous



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 45 - 50 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	D	Е	Е
V/C	.32	.49	.62
ADT	4,100	7,000	9,400
Peak Hour Volume	500	700	900
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	5.0%	5.0%	5.0%

Concept Facility (2020) 2-lane, conventional with left turn lanes, passing lanes,

and turnouts, as needed; LOS C

Ultimate Transportation Corridor 4-lane, conventional highway

Local Planning Jurisdiction Mariposa County Transportation Commission

Planned Projects

County	Route	Post Miles	Description	Designation
Mariposa	SR-140	16.6-19.1	Construct eastbound passing	Regional
			lane	Transportation
			Agua Fria to Martin Rd.	Plan 2001
Mariposa	SR-140		Left turn lane at Smith Road	Regional
				Transportation
				Plan 2001
Mariposa	SR-140		Left-turn lane at Yaqui Gulch Rd.	Regional
				Transportation
				Plan 2001
Mariposa	SR-140		Left-turn lane at Mount Bullion	Regional
			cutoff	Transportation
				Plan 2001

Programmed Projects

Trogrammed			I	
County	Route	Post Miles	Description	Designation
Mariposa	SR-140	13.3-13.8	Construct turnout and pave	2004 Minor
			shoulder w/of Mt. Bullion Cutoff	
Mariposa	SR-140	17.1-17.1	Install RT turn Channelization @	2001 Minor
			fiddletown in Plymouth at the	
			intersection of Yaqui Gulch Rd.	
Mariposa	SR-140	17.8-17.9	Extend Turnout nearr Rte. 140 and	2002 Minor
			Yaqui Gulch Rd.	
Mariposa	SR-140	21.2	Update signs & Install Flashing	2001 Minor
			Beacons at Jct. Of Rte. 140/49 and	
			Jct. Of Rte. 120/108	

System Designations

Yes Freeway/Expressway System Yes National Highway System (NHS) Yes Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 60 to 275 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required. This segment traverses a mountainous terrain.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment		
	Carbon Monoxide Suspended	Unclassified		
	Particulate Matter	Unclassified		
Flood Plain	None			
Wetlands	Yes	Low to Moderate Sensitivity		
Endangered Species:	Yes	Moderate Sensitivity		
Archaeological	Yes	High Sensitivity		

Traffic Collision Rate (per million vehicle miles traveling)

Actua	al Accident Rate	Stat	ewide Average Rate
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.52	1.13	.71	1.46

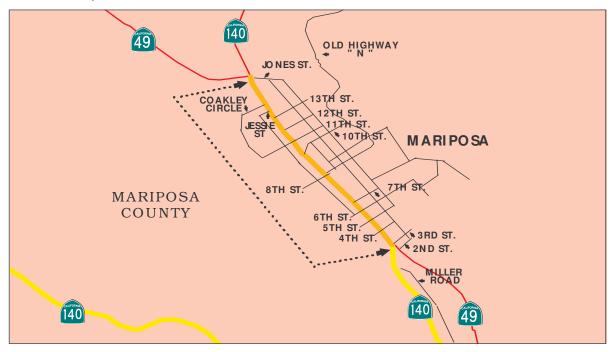
SR 140: MARIPOSA COUNTY - SEGMENT 3 FACT SHEET

Location PM 21.22 – 22.00 From SR 49 S – To SR 49 N

Length 0.78 miles

Functional Classification Principal Arterial Rural/Urban Rural

Within City Limits No Terrain Mountainous



Traffic Forecast Data 2-Lane Conventional Highway Average Highway Speed 45 mph

Tiverage Highway Speed 45 hiph					
	1997	2010 w/o	2020 w/o		
	Existing_Facility	Improvement	Improvements		
LOS	Е	Е	Е		
V/C	.62	.74	.87		
ADT	9,600	11,200	12,500		
Peak Hour Volume	1,000	1,200	1,400		
Peak Hour Dir. Split	60/40	60/40	60/40		
% Trucks	4%	4%	4%		

Concept Facility (2020)

4-5 lane, conventional highway or bypass; LOS C

Ultimate Transportation Corridor

4-5 lane, conventional highway or bypass

Local Planning Jurisdiction

Mariposa County Transportation Commission

Planned Projects

	2 10111100 2 1 0 0 0 0 0				
County	Route	Post Miles	Description	Designation	
Mariposa	SR-140	22.0-25.1	Construct eastbound passing lane	2001 Regional	
			Mariposa Town to Midpines Summit	Transportation	

Programmed Projects

County	Route	Post Miles	Description	Designation
Mariposa	SR-140	22	Install signals on Rte. 140 at the N	2003 Minor
			Jct. Of SR-140 and SR-49	

System Designations

Yes Freeway/Expressway System
Yes National Highway System (NHS)
Yes Interregional Road System (IRRS)
No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

No Scenic Highway Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 50-160 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 6 feet. In order to widen this segment, right-of-way acquisition will be required.

Air Quality/Environmental Status

Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Unclassified
Flood Plain	Within the 100 year flood plain	
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	High Sensitivity
Archaeological	Yes	High Sensitivity

Traffic Collision Rate (per million vehicle miles traveled)

Actua	al Accident Rate	Stat	ewide Average Rate
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
1.53	5.63	.85	1.69

SR 140: MARIPOSA COUNTY - SEGMENT 4 FACT SHEET

Location PM 22.00 – 29.70 From SR-49 N – To Yosemite Ntl Prk

Length 7.70 miles

Functional Classification Principal Arterial Rural/Urban Rural

Within City Limits No Terrain Mountainous



Traffic Forecast Data 2-Lane Conventional Highway Average Highway Speed 45 - 50 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	D	Е	Е
V/C	.28	.43	.57
ADT	3100	3900	4500
Peak Hour Volume	320	500	650
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	5%	5%	5%

Concept Facility (2020) 2-lane, conventional highway with passing lanes; LOS C

Ultimate Transportation Corridor 4-lane, conventional highway

Local Planning Jurisdiction Mariposa County Transportation Commission

Planned Projects

County	Route	Post Miles	Description	Designation
Mariposa	SR-140	22.0-25.1	Construct eastbound passing lane	2001 Regional
			Mariposa Town to Midpines Summit	Transportation Plan

Programmed Projects

County	Route	Post Miles	Description	Designation
Mariposa	SR-140	22	Install signals on Rte. 140 at the N	2003 Minor
			Jct. Of SR-140 and SR-49	

Intelligent Transportation System (ITS) Proposed Projects

PM 22.01 YATI Sign, Changeable Message Sign (CMS), PM 22.01 YATI Highway Advisory Radio (HAR).

System Designations

Yes Freeway/Expressway System
Yes National Highway System (NHS)
Yes Interregional Road System (IRRS)
No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

Yes Scenic Highway
Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 80 to 400 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required and the mountainous terrain will be a factor in the location of passing lanes.

Air Quality/Environmental Status

All Quality/Ellvirolline	An Quanty/Environmental Status					
Air Quality	Ozone	Non-attainment				
	Carbon Monoxide Suspended	Unclassified				
	Particulate Matter	Unclassified				
Flood Plain	Within 100 year flood plain					
Wetlands	Yes	Low to Moderate Sensitivity				
Endangered Species:	Yes	High Sensitivity				
Archaeological	Mostly Surveyed	High Sensitivity				

Traffic Collision Rate (per million vehicle miles)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
	Damage only)		Damage only)
.97	2.18	.91	1.83

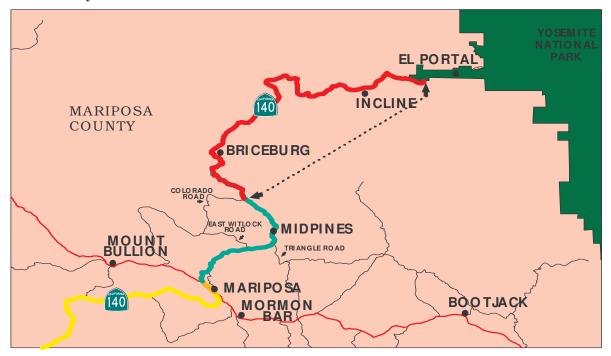
SR 140: MARIPOSA COUNTY - SEGMENT 5 FACT SHEET

Location PM 29.70 – 51.80 From SR-49 N – To Yosemite Ntl Prk

Length 22.10 miles

Functional Classification Principal Arterial Rural/Urban Rural

Within City Limits No Terrain Mountainous



Traffic Forecast Data
2-Lane Conventional Highway
Average Highway Speed 50 mph

	1997	2010 w/o	2020 w/o
	Existing_Facility	Improvement	Improvements
LOS	D	Е	Е
V/C	.28	.43	.57
ADT	3100	3900	4500
Peak Hour Volume	320	500	650
Peak Hour Dir. Split	60/40	60/40	60/40
% Trucks	5%	5%	5%

Concept Facility (2020)

2-lane, conventional highway with passing lanes and paved shoulders; **LOS C**

The Mariposa Local Transportation Commission has advised that this portion of SR-140 is frequently traveled by bicyclists. Paved shoulders will provide increased safety for bicyclists accessing the Merced River Canyon.

Ultimate Transportation Corridor 4-lane, conventional highway

Local Planning Jurisdiction Mariposa County Transportation Commission

California Department of Transportation – District 10
Transportation Concept Report

February 2002 State Route 140 **Planned Projects**

County	Route	Post Miles	Description	Designation
Mariposa	SR-140		Realign Bear Creek to Briceburg	Regional
				Transportation
				Plan 2001

Programmed projects: No programmed projects for this segment

Intelligent Transportation System (ITS) Proposed Projects

PM 22.01 YATI Sign, Changeable Message Sign (CMS),

PM 22.01 YATI Highway Advisory Radio (HAR).

System Designations

Yes Freeway/Expressway System
Yes National Highway System (NHS)
Yes Interregional Road System (IRRS)

No - High Emphasis Route

No - Focus Route

No Strategic Highway Network (STRAHNET)

No STAA Truck Network

Yes Terminal Access Route for National Truck Network

Yes Scenic Highway
Yes Accessible to Bicycles

Right-of-way/Shoulder Information

The right-of-way ranges from 80 to 400 feet. The paved shoulder width ranges from 0 to 4 feet on each side of the roadway. The average shoulder width is 2 feet. In order to widen this segment, right-of-way acquisition will be required and the mountainous terrain will be a factor in the location of passing lanes.

Air Quality/Environmental Status

711 Quanty/Environmental Status		
Air Quality	Ozone	Non-attainment
	Carbon Monoxide Suspended	Unclassified
	Particulate Matter	Unclassified
Flood Plain	Within 100 year flood plain	
Wetlands	Yes	Low to Moderate Sensitivity
Endangered Species:	Yes	High Sensitivity
Archaeological	Mostly Surveyed	High Sensitivity

Traffic Collision Rate (per million vehicle miles)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property
3 3	Damage only)		Damage only)
pending			-

Appendix 1 List of System Planning Acronyms

ACLT Alpine County Local Transportation Commission
ACTC Amador County Transportation Commission

ADT Average Daily Traffic

AHS Automated Highway System

ATSD Advanced Transportation System Development

AVI Automated Vehicle Identification

BN&SF Burlington Northern and Santa Fe Railroad

CALACOG Calaveras Council of Governments

CBD Central Business District CCAA California Clean Air Act

CMAQ Congestion Mitigation and Air Quality (Improvement Program)

CMP Congestion Management Plan

CTIS California Transportation Investment Strategy

CTC California Transportation Commission
D/C Demand Volume to Capacity Ratio
DSMP District System Management Plan
EPA Environmental Protection Agency

ETTM Electronic Toll Collection and Traffic Management

F&E Freeway and Expressway System

FAT Fatalities

FIS Federal Inspection Facility

FY Fiscal year

HOV High Occupancy Vehicle

ICES Intermodal Corridors of Economic Significance

IRRS Interregional Route System

ISTEA Intermodal Surface Transportation Efficiency Act ITMS Intermodal Transportation Management System

ITS Intelligent Transportation System

ITSP Interregional Transportation Strategic Plan

LOS Level of Service

LROP Long Range Operations Plan

LRT Light Rail Transit

MCAG Merced County Association of Governments

MCLT Mariposa County Local Transportation Commission

MIS Major Investment Study

MOU Memorandum of Understanding MSL Maintenance Service Level

NAFTA North American Free Trade Agreement

NHS National Highway System

PHV Peak Hour Volume

PM Post Mile PR Project Report

PSR Project Study Report

PTOC Primary Traffic Operations Center

POE Port of Entry

RAQS Regional Air Quality Strategy RAS Regional Arterial System

RCR Route Concept Report (now known as Transportation Concept Reports)

RTP Regional Transportation Plan

R/W Right of Way

SHOPP State Highway Operations and Protection Program

SHRAHNET Strategic Highway Corridor Network SJCOG San Joaquin Council of Governments

SOV Single Occupancy Vehicle

SR State Route

STAA Surface Transportation Assistance Act
StanCOG Stanislaus Area Association of Governments
STIP State Transportation Improvement Program

TASAS Traffic Accident Surveillance and Analysis System TCCAPC Tuolumne County / Cities Area Planning Council

TCM Transportation Control Measure
TCR Transportation Concept Report

TDM Transportation Demand Management

TSDP Transportation System Development Program TMA Transportation Management Association/Area

TMC Transportation Management Center
TSM Transportation System Management
UTC Ultimate Transportation Corridor

VMT Vehicles Miles Traveled

Appendix 2 Level of Service (LOS) Definitions

The Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:

- **LOS** A describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.
- **LOS B** is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
- LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.
- **LOS D** demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.
- **LOS** E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.
- **LOS F** represents a breakdown or forced flow. It usually occurs at a point on a planned facility when forecast demand exceeds computed capacity.

Appendix 3 Rural, Urban, and Urbanized Definitions

The rural, urban, and urbanized area limits are based upon population density as determined by the U.S. Census Bureau. The criteria are:

Rural – Under 5,000 population

Urban – 5,000 to 49,999 population.

Urbanized – over 50,000 population